

In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-20 (Canceled)

21. (Currently Amended) A method for detecting multiuser behavior on an aerial interface in GPRS and EGPRS mobile radio systems, comprising the steps of

acquiring and evaluating during a transmission of subscriber data on an aerial interface, additional information contained in subscriber data by a device on a network side and/or a subscriber side, both in the uplink and the downlink; wherein the acquiring and evaluating step comprises comparing at the beginning of a Temporary Bit Flow (TBF) the number of the used Radio Link Control (RLC) blocks with an actually available and hence usable number of RLC blocks; and

identifying a number of parallel subscribers in used timeslots based on the additional information contained in the RLC blocks.

22. (Canceled)

23. (Currently Amended) The method according to claim 21, wherein the acquiring and evaluating step comprises the step of evaluating parameters Uplink Status Flag (USF) and/or Temporary Flow Identifier (TFI) as the additional information.

24. (Previously Presented) The method according to claim 23, wherein the acquiring and evaluating step further comprises the step of determining for the duration of an uplink TBF, how many USF's are allocated by the network side.

25. (Previously Presented) The method according to claim 23, wherein the acquiring and evaluating step further comprises the step of determining for the duration of a downlink TBF,

how many USF's are allocated by the network side.

26. (Previously Presented) The method according to claim 23, wherein the acquiring and evaluating step further comprises the step of identifying the USF's and/or TFI's and for each TBF and a combination of all TBF's which are part of the transfer.

27. (Previously Presented) The method according to claim 22, wherein the acquiring and evaluating step further comprises the step of determining, in a static allocation process, the usage of the timeslots for the RLC blocks by counting the data frames.

28. (Previously Presented) The method according to claim 21, wherein the acquiring and evaluating step comprises the step of evaluating for the entire lifetime of the respective uplink TBF and/or downlink TBF, the RLC data as well as the RLC/MAC control blocks for all TBF's in existence at that time and in all timeslots allocated to the respective TBF, and determining based on these data if a multiuser operation has occurred at the time of the data transmission.

29. (Currently Amended) A device for detecting multiuser behavior on the aerial interface in GPRS and EGPRS mobile radio systems, wherein during a transmission of subscriber data on the aerial interface, additional information contained in the subscriber data is acquired and evaluated by at least one device on the network side and/or the subscriber side, both in the uplink and the downlink; wherein the additional information contained in the subscriber data is acquired and evaluated by comparing at the beginning of a Temporary Bit Flow (TBF) the number of the used Radio Link Control (RLC) blocks with an actually available and hence usable number of RLC blocks; and a number of parallel subscribers in used timeslots is identified based on the additional information by identifying the number of parallel subscribers in the used timeslots based on the additional information contained in the RLC blocks; and wherein the at least one device for acquiring the additional information is provided on the network side and/or on the subscriber side in the mobile radio network, which information is included in the subscriber data transmitted on the aerial interface in the downlink and uplink.

30. (Previously Presented) The device according to claim 29, wherein the at least one device is provided in the Packet Control Unit PCU (8).

31. (Previously Presented) The device according to claim 29, wherein the at least one device comprises a subscriber-side measurement system, which cooperates with or is integrated in a mobile radio terminal.

32. (Previously Presented) The device according to claim 29, wherein the additional information comprises the parameters USF and/or TFI.